

# **ICE PROTECTION HWG STATUS**

**PRESENTATION TO ARAC TAEIG**

**JUNE 26, 2001**

*Handout 6*

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**16TH IPHWG MEETING HELD AT CAPUA, ITALY, MAR 19-22, 2001**

The main purpose of the meeting was to discuss and refine the certification rule draft NPRM and AC provided to the group by the FAA

**Task 1. As a short-term project, consider the need for a regulation that requires installation of ice detectors, aerodynamic performance monitors, or another acceptable means to warn flight crews of ice accumulation on critical surfaces requiring crew action (regardless of whether the icing conditions are inside or outside of Appendix C of 14 CFR Part 25). Also consider the need for a Technical Standard Order for design and/or minimum performance specifications for an ice detector and aerodynamic performance monitors. Develop the appropriate regulation and applicable standards and advisory material if a consensus on the need for such devices is reached.**

**16TH IPHWG MEETING**

**IN ORDER TO EXPEDITE THE CERTIFICATION RULE PROPOSAL FOR TASK 1,  
THE FAA PREPARED A DRAFT NPRM AND AC**

**THE DRAFTS WERE EDITED IN THE GROUP TO CONSENSUS AS FAR AS POSSIBLE**

**REMAINING ISSUES ARE DOCUMENTED IN A REPORT TO TAEIG**

**THE DOCUMENTS AND THE REPORT WERE SUBMITTED TO TAEIG ON JUNE 1,  
2001**

## **REPORT HIGHLIGHTS**

### **THE IPHWG IDENTIFIED THREE OPTIONS WITH RESPECT TO § 25.1420**

- . ACCEPT THE RULE LANGUAGE AS PROPOSED FOR THE TIME BEING, WITH THE INTENT OF REVISITING IT AS PROGRESS IS MADE ON TASK 2**
- . MAKE THE RULE GENERALLY APPLICABLE WITH NO DISCRIMINATOR, BUT ALLOW MANUFACTURERS TO DEMONSTRATE THAT EXITING THE CONDITIONS IS NOT REQUIRED, OR**
- . DELAY THE RELEASE OF THE PROPOSED §25.1420 UNTIL FURTHER PROGRESS IS MADE TOWARDS TASK 2, SINCE THE PREVIOUSLY SUBMITTED OPERATING RULE PROPOSALS (IF ADOPTED) WILL PROVIDE THE DESIRED INCREASED LEVEL OF SAFETY IN THE INTERIM**

**THE SUPPORTING RATIONALE AND THE PROS AND CONS OF EACH OF THESE OPTIONS IS SET FORTH IN DETAIL IN THE REPORT**

**REQUESTED TAEIG ACTIONS**

**THE IPHWG WAS GIVEN ONE MEETING FOR THIS REVIEW IN ORDER TO FORMULATE COMMENTS AND CONCERNS**

**CONSENSUS WAS NOT AN OBJECTIVE**

**NO CLEAR MAJORITY OPINION ON THE PROPOSED § 25.1420 COULD BE ACHIEVED DURING THE REVIEW PERIOD**

**THERE WERE STRONG SUPPORTERS FOR EACH OF THE OPTIONS**

**THE IPHWG MEMBERS FEEL THAT THE REPORT FULFILLS THE GIVEN TASK OF REVIEWING THE DOCUMENTS**

**A TAEIG VOTE FOR TRANSMITTAL OF THE REPORT AND THE DOCUMENTS TO FAA IS REQUESTED**

**IPHWG FUTURE MEETING SCHEDULE**

<b>JULY 15 - 20, 2001</b>	<b>MONTREAL, QUEBEC, CANADA</b>
<b>OCTOBER 22 - 27, 2001</b>	<b>SWEDEN</b>
<b>FEBRUARY 4 - 8, 2002</b>	<b>TBD, NORTH AMERICA</b>
<b>MAY 20 - 24, 2002</b>	<b>TBD, EUROPE</b>
<b>SEP 9 - 13, 2002</b>	<b>TBD, NORTH AMERICA</b>
<b>DEC 2 - 6, 2002</b>	<b>TBD, EUROPE</b>

## **IPHWG FUTURE MEETING SCHEDULE**

**UNTIL TASK 1 MATERIAL IS RETURNED TO THE GROUP AFTER FAA PROCESSING, THE MEETINGS WILL BE DEVOTED TO TASK 2**

**Task 2. Review National Transportation Safety Board recommendations A-96-54, A-96-56, and A-96-58, and advances in ice protection state-of-the-art. In light of this review, define an icing environment that includes supercooled large droplets (SLD), and devise requirements to assess the ability of aircraft to safely operate either for the period of time to exit or to operate without restriction in SLD aloft, in SLD at or near the surface, and in mixed phase conditions if such conditions are determined to be more hazardous than the liquid phase icing environment containing supercooled water droplets. Consider the effects of icing requirement changes on 14 CFR part 23 and part 25 and revise the regulations if necessary. In addition, consider the need for a regulation that requires installation of a means to discriminate between conditions within and outside the certification envelope.**



## **IPHWG FUTURE MEETING SCHEDULE**

**AS STATED IN THE PREVIOUSLY SUBMITTED TASK 2 REPORT, THE GROUP RECOMMENDS TO TAEIG THAT IPHWG DEVELOP AT LEAST INTERIM SLD CERTIFICATION STANDARDS**

- . MAY NOT BE A COMPLETE REVISION OF THE APPENDIX C ENVELOPES**
- . SHOULD BE SUFFICIENT TO PERMIT GENERATION OF ICE SHAPES FOR USE IN THE REMAINDER OF TASK 2**

**THE IPHWG BELIEVES THAT INTERIM STANDARDS COULD BE COMPLETED TO CONCEPT APPROVAL DURING FIRST QUARTER OF 2002**

**AN AGENDA ITEM FOR THE NEXT IPHWG MEETING WILL BE TO DEVELOP A SCHEDULE FOR TASK 2 ACTIVITIES**

**REPORT HIGHLIGHTS**

**THE FAA NPRM PROPOSAL CONTAINS THREE NEW SUB-PARAGRAPHS TO § 25.1419 AND A NEW PROPOSED § 25.1420**

**THE IPHWG REVIEWED THE PROPOSED §25.1419 WITH MINOR CHANGES MADE DURING THE MEETING**

**CONSENSUS WAS ACHIEVED ON THIS PART OF THE PROPOSAL**

**THE PROPOSED § 25.1420 WAS REVIEWED WITHOUT CONSENSUS**